ABSTRACT

Driving has become a common practice for people in transportation. Within driving, there were systems that maintain traffic order, such as automatic vehicle license plate recognition systems. Image quality is a crucial factor in enhancing the accuracy of automatic recognition systems. The purpose of this research is to make a Convolutional Neural Network model for the process of deblurring vehicle license plate images. The method used aims to enhance the quality of vehicle license plate images by reducing noise or blur. The model employed is an autoencoder designed using a Convolutional Neural Network (CNN), *trained on both blurred and sharp image data. The research results indicate that the method achieved an accuracy of 82.98%, with a validation accuracy of 83.59%. There was a significant improvement in the average Signal-to-Noise Ratio* (SNR) *from 19.69 dB to 27.34 dB after the deblurring process. This study demonstrates that* CNN *effectively addresses blurriness issues in vehicle plate images, potentially enhancing the reliability of automatic recognition systems.*

Keywords: *Convolutional Neural Network, autoencoder, deblurring*